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Combined response to objections #15-01-00-0023, #15-01-00-0031, #15-01-00-0043, #15-01-00-0047, #15-01-00-0049, #15-01-00-0051, #15-01-00-0052, #15-01-00-0053, #15-01-00-0055, and #15-01-00-0056.

Dear Objectors:

This letter is in response to your objections of the Montanore Project (project) located on the Kootenai National Forest (Forest). I have read the objections and reviewed the Final Environmental Impact Statement (FEIS), the draft Record of Decision (DROD), the content in the project file, and considered the comments submitted during the opportunities for public comment for this project. Based on this review, conducted in accordance with 36 CFR 218, I understand the disclosed environmental effects of this project.

The regulations at 36 CFR 218 provide for a pre-decisional administrative review process ("objection" process) in which the objector provides sufficient narrative description of the project, specific issues related to the project, and suggests remedies that would resolve the objection (36 CFR 218.8). The regulations also allow, in part, for the parties to meet in order to resolve the issues (36 CFR 218.11(a)). The objection resolution meeting was held in Libby at the Kootenai National Forest Supervisor's Office on June 30, 2015 from 9:00 a.m. to noon. I want to thank the objectors who took the time to participate in the resolution meeting, including Frank Wall, Kim Wilson on behalf of John Cleveland (Libby Placer Mining Company), Ashley South (Montana Wilderness Association), Paul Lammers on behalf of Doug Stiles (Revett Mining Company), Bonnie Gestring and Roger Flynn (Earthworks), Joe DosSantos (AVISTA), and Mike Cole and Mark Peck (Lincoln County Commissioners).

As I explained at the resolution meeting, there was an extraordinary amount of information that needed to be reviewed before this response letter could be completed. In order to conduct a complete and thorough review, I extended the objection review period for three weeks, in compliance with 36 CFR 218.26(b).

As specified at 36 CFR 218.11(b), I must provide a written response that sets forth reasons for the response; however, this written response need not be point-by-point. The regulations also permit the Objection Reviewing Officer to consolidate objections and issue one or more responses. I have consolidated the issues from all of the objections and I am issuing two response letters, one to Alliance for the Wild Rockies and one to the remaining objectors. I have reviewed the project in light of the issues presented in your objections and considered the suggested remedies. The reasons for my responses to these issues are detailed below.

Issues not requiring further discussion or instruction

The objections raised the following issues/allegations that I have determined do not require additional discussion or instruction to the Responsible Official:

Issue A (*Analysis of Tailings Impoundment Alternatives*):

- The Forest improperly eliminated from detailed consideration an alternative that evaluated dry or filtered tailings disposal.
- The FEIS fails to consider a full range of alternatives for the disposal of tailings, including backfill of tailings into the mine void.

Issue B: The FEIS fails to disclose the structural stability of the tailings impoundment facility. As such, the objector contends that the Forest did not adequately evaluate the environmental impacts of the mine alternatives.

Issue C: The Forest should not authorize the harvest of timber as part of the project.

Issue D: The "human presence [associated with the project] will damage fragile ecosystems."

Issue E: There should be no mining in the National Forests, and the Forest should not have sold mining rights to the proponent of the project.

Issue F: The Forest will be ruined by the proposed mining activities.

Issue G: The Forest failed to analyze approval of the proposed transmission lines pursuant to the requirements of the Federal Land Policy Management Act (FLPMA)'s Right-of-Way provisions.

Issue H: The project will impermissibly remove Inventoried Roadless Areas from consideration for recommended wilderness.

Issue I: The Forest should not close Upper Bear Creek Road as part of the project's mitigation plan for grizzly bear.

Issue J (*Wildlife*):

- The Forest is in violation of the National Forest Management Act (NFMA), the Organic Act, and the implementing regulations by allowing unacceptable environmental impacts to wildlife species and for incorporating mitigation measures that are inadequate for the protection of wildlife species.
- The FEIS fails to adequately analyze: 1) the potential for the project to displace grizzly bears from the project area; 2) the project's effect on grizzly bear habitat connectivity; and 3) the project's effect on grizzly bear linkage zones. Objectors also allege that the habitat mitigation plan is not based on the best available science.
- The FEIS fails to adequately analyze the effects of road access changes, increased traffic, or the influx of people, including mine employees and visitors, on grizzly bears in the project area.

- The DROD proposes to approve the project based on implementation of an inadequate mitigation plan for grizzly bears.
- The FEIS fails to properly analyze the cumulative impacts to grizzly bears from past, present, and reasonably foreseeable activities; the Forest also relied on insufficient mitigation measures to offset potential impacts to grizzly bears.
- The Forest's proposed approval of the project relies on an inadequate Biological Opinion from the U.S. Fish and Wildlife Service (USFWS).
- The FEIS fails to properly analyze or mitigate the project's direct, indirect and cumulative effects on lynx. The objector also contends that the Forest failed to adequately consult with the USFWS on lynx, as required by the Endangered Species Act (ESA), and that the agencies cannot ensure that the project will not jeopardize the continued existence of lynx.
- The FEIS fails to properly analyze the direct and cumulative effects of the project on mountain goats. The objectors also allege that the FEIS fails to minimize the project's impacts to this species.
- The Forest failed to provide a Biological Assessment for the wolverine, and thus fails to adequately address wolverines as a sensitive species. The objectors also allege that the FEIS does not properly analyze or mitigate the cumulative effects of the project on this species.
- The FEIS fails to properly analyze and mitigate the direct and cumulative effects of the project on species such as the pileated woodpecker. The objectors also allege that the FEIS does not adequately describe retention of snags over 20 inches dbh.

Issue K: The FEIS and DROD fail to minimize the project's impacts to old growth forest.

Issue L: The FEIS and DROD do not adequately analyze and protect against the project's adverse effects on the Riparian Habitat Conservation Areas (RHCAs), in violation of National Environmental Policy Act (NEPA), NFMA and the Forest Plan.

Issue M: The Forest violated NEPA by failing to include in the FEIS reclamation bond calculations in each alternative, and by failing to subject these calculations to public review.

Issue N: The Forest cannot approve the entire mine project at this time.

Issue O: The Forest fails to meet the timely reclamation requirements set forth at 36 CFR 228.8(g).

Issue P: The FEIS does not adequately disclose the project's potential for acid generation of ore, waste rock, and tailings.

Issue Q: The Forest did not sufficiently consider utilizing new and advanced technology for constructing the transmission line, such as installing the transmission line underground or using wireless technology.

Issue R: The Forest improperly relies on an Order to Degrade issued by the Montana Board of Health and Environmental Sciences.

Issue S: The analyses in the FEIS and the DROD are, in general, inadequate.

Issue T: The FEIS fails to demonstrate with a reasonable level of certainty that the proposed groundwater mitigation measures (barrier pillars) will be effective.

Issue U: The proposed mitigation measures for baseflow reductions are insufficient and should be mandatory, not optional.

Issue V: The project will violate the Clean Water Act (CWA) by failing to meet the zero-discharge requirements of the U.S. Environmental Protection Agency's (EPA) New Source Performance Standards for copper milling operations using froth-flotation.

Issue W: The FEIS does not contain adequate information about whether the proposed water treatment plant will be needed to treat metals. The objector also alleges that the FEIS does not contain sufficient information about the size and capabilities of the water treatment plant and percolation ponds or current baseline data on receiving waters.

Issue X: The Forest failed to collect adequate baseline data to evaluate the impacts of increased sediment.

Issue Y: The Forest is abdicating its responsibility to protect water quality and fisheries by allowing the project proponent to operate under a water quality waiver of turbidity that will increase sediment.

Issue Z: The Forest improperly analyzes, and DROD mistakenly proposes to approve, construction of the roads, pipelines and other conveyances pursuant to the 1872 Mining Law and the regulations at 36 CFR 228. Rather, the objectors contend that the Forest is required to review and approve such facilities pursuant to the requirements of FLPMA and its implementing regulations.

Issue AA: The Forest violated NEPA by failing to release the barrier pillars mitigation proposal to the public for review and comment.

Based on my review of the FEIS, the DROD, and the content in the project file, I find these issues/contentions do not require further discussion or instructions to the Responsible Official for one or more of the following reasons:

1) The proposed actions, even though not agreeable to some, are in compliance with applicable regional guidelines, the Forest Plan, and/or law, regulation and policy, as supported by adequate analysis and rationale made available in the FEIS and DROD, and further supported by information in the project file;

2) The effects on resources and/or species have been appropriately addressed in the FEIS and DROD;

3) The Forest has already provided an adequate and thorough response to the issue in the response to comments and/or revised the EIS in response to issues raised during the public comment period;

4) The appropriate models, methodology, and/or best available science were applied and described in the FEIS and project file, and the analysis is adequate;

5) The suggested remedy is beyond the scope of the project;

6) The suggested remedy is not within the agency's discretion or authority;

7) The objector(s) misread or misinterpreted the information in the FEIS and/or the DROD;

8) The issue, as presented by the objector, was too broad/vague to understand what effects/inadequacies were being alleged;

9) The requested information/data was already provided in the FEIS or DROD.

Responses to issues requiring further discussion or instruction

Based on my review of the FEIS and DROD, and the content in the project file, I offer the following responses to your objections and, where necessary, instructions to the Responsible Official:

ISSUE 1: An objector expressed concerns about the location of the tailings impoundment site relative to nearby private property. The objector contends that the agency developed successive screening levels to narrow the range of tailings impoundment options analyzed in detail for the EIS, but that the Forest failed to apply all the screening criteria to the proposed Poorman tailings site. As such, the objector states that the FEIS fails to fully evaluate the impacts of siting the tailings impoundment in its current location.

Response: The Deciding Official acknowledged the objector's concerns about the location of the tailing impoundment site, noting: "Although the impoundment will be entirely on National Forest System lands, I can understand the concern about potential direct and indirect effects of constructing and operating an impoundment near private property" (DROD 36-37). The DROD further discloses that "[p]rivate property not owned by [the project proponent] is located 300 feet east of. . . where the tailings dam alignment will be located" (DROD Attachment 1, p. 25). The DROD includes several required mitigation and monitoring measures to minimize adverse effects on private property (DROD 37-39).

With respect to the objector's concerns about application of the screening levels to evaluate the tailings impoundment options, the FEIS states that:

> "The disturbance area for the agencies' proposed Little Cherry Creek and Poorman impoundments, which include ancillary facilities, is between 1,500 and 2,000 acres. To standardize disturbance areas for the impoundment sites during screening, the area around each impoundment footprint developed for the MAC Report or the Morrison-Knudsen Engineers analysis except the Little Cherry Creek and Poorman sites was enlarged by 2,000 feet. The disturbance area around Little Cherry Creek and Poorman sites was not enlarged during the screening because the agencies had already expanded the area around the impoundment at the time of the screening analysis" (FEIS 252).

The FEIS details the screening analysis for the impoundment locations (251-254). The proximity of a tailings impoundment site adjacent to private property was not a screening criterion. Based on this explanation, it remains unclear how the Forest took into account the disturbance area around the Poorman site.

Instructions: *I am directing the Forest to clarify, in the FEIS, the disturbance area calculation that was used for the Poorman site and how the Forest took into account this disturbance area when it conducted the Level 1 screening analysis for the tailings impoundment site. I am also directing the Forest to describe the effects that the Poorman tailings site will have on the adjacent private property.*

ISSUE 2: Objectors allege that the FEIS provides insufficient or inaccurate data to evaluate the effects from seepage that may occur at the Poorman tailings impoundment site on groundwater quality.

Response: The project proponent estimated a tailings seepage rate of 25 gpm at the Little Cherry Creek impoundment site using groundwater modeling; the results were independently verified by the lead agencies (the Forest and Montana Department of Environmental Quality (DEQ)) (FEIS 539). Because the geologic and hydrologic conditions are similar at the Little Cherry Creek and Poorman impoundment sites, the agencies applied the same seepage rate of 25 gpm at the proposed impoundment site (*Id*). Groundwater quality data from the Little Cherry Creek Impoundment site were used to represent ambient concentrations at both impoundment sites (FEIS 549-551).

While the FEIS discloses the impoundment site's potential effects on groundwater quality, this analysis is based on the assumption that the seepage rate calculated for the Little Cherry Creek site is also applicable to the Poorman site. The basis for this assumption should be more clearly explained in the FEIS.

Instructions: *I am directing the Forest to clarify further its rationale for using the seepage rate of 25 gpm at the Poorman impoundment. I am also requiring clarification of the use of groundwater monitoring data from a well between the Little Cherry Creek impoundment site and the Poorman site.*

ISSUE 3: An objector asserts that the Forest has not yet collected and analyzed basic baseline data to determine the feasibility for the selected tailings impoundment alternative. The objector alleges that failure to collect this information violates NEPA because additional data are required to inform the final design of the tailings facility and to conduct an adequate environmental analysis.

Response: The DROD requires ongoing stability analyses in the selected mine alternative (DROD 16; *see also* FEIS 132-134). The design of a complex structure like a tailings impoundment is an iterative process that advances through stages from conceptual to preliminary to planning to final design. Adequate design procedures were followed for a preliminary level stability assessment. As described in the FEIS, confirmation of subsurface conditions at the Poorman impoundment site and confirmation of tailings properties will be completed, and an updated stability analysis will be conducted during the Evaluation Phase and Final Design Phase of the Montanore project. However, the Forest could more clearly describe why the data presented in the FEIS are sufficient to determine the feasibility of the selected tailings impoundment alternative.

Instructions: *I am instructing the Forest to review the FEIS to ensure that each resource section describes why the data used are sufficient to analyze the project's potential environmental impacts. If a resources section is lacking this explanation, I am instructing the Forest to include such an explanation in the FEIS.*

ISSUE 4: An objector alleges that the FEIS fails to adequately analyze the effects of designating Libby Creek Road as the main mine access route. In particular, the objector claims that the Forest fails to consider the significant impact to adjacent private property that would result from mine traffic, including effects from increased traffic, dust, noise, and other direct impacts from frequent heavy truck and equipment traffic.

Response: The Biological Opinion for grizzly bear includes a required term and condition that changed the primary access and haul route from the Bear Creek Road (NFS road #278) to the Libby Creek Road (NFS road #231) for the life of the mine (DROD Attachment 9, p.1). The Forest analyzed the effects of this change on recreation and transportation in Attachment 9 to the DROD. However, the analysis does not specifically disclose or analyze the anticipated effects related to safety concerns that may result from a new mix of mining-related and recreation-related traffic utilizing the same road. Nor does the DROD fully disclose or analyze the anticipated effects of noise and other impacts to private property from increased traffic levels on Libby Creek Road.

Finally, the DROD (Attachment 1, p.15) indicates that an easement held by an objector allows the property owner to maintain ownership of all timber. Pursuant to this easement, the Forest Service is allowed to cut timber within the right-of-way to the extent necessary for constructing, reconstructing, and maintaining the road. Timber is to be cut into logs of lengths specified by the owner and decked along the road for disposal by the owner. These terms and conditions will be a stipulation to the mine proponent's Plan of Operations. However, these terms and conditions are not listed in the DROD's Approved Stipulations and Mitigation Measures.

Instructions: *I am directing the Forest to analyze and disclose in the Final ROD the anticipated effects of increased traffic levels from use of the Libby Creek Road as the main access road. This analysis must look at possible safety concerns that may result from a new mix of mining-related and recreation-related traffic utilizing the same road. The analysis must also disclose the anticipated effects of noise and other direct impacts to private property from increased traffic levels on Libby Creek Road (see also instructions for Issue 5). Finally, I am directing the Forest to include the easement's timber terms and conditions in the Final ROD's Approved Stipulations and Mitigation Measures.*

ISSUE 5: An objector contends that the FEIS fails to adequately analyze the Alternative 3 tailings impoundment's noise impacts to private property. The objector also asserts that the Forest must update the sound study and analysis to account for changes to the selected alternative's (Alternative 3) facility layout that occurred after the study was completed.

Response: The Big Sky Acoustic's noise study (2006) was completed using the facility layout for a different alternative (Alternative 2), not the facility layout proposed in the selected alternative. Thus, the study may have not modeled the ventilation fans correctly. It is also not clear that the FEIS clearly addressed the proposed project's noise impacts to private property.

Instructions: *I am instructing the Forest to analyze and disclose the noise impacts of Alternative 2 if the ventilation fans were not correctly modeled, and the noise impacts of Alternative 3. As noted in the instructions to Issue 4, the new modeling and analysis must disclose the anticipated effects of noise to private property from increased traffic levels*

on Libby Creek Road. The Forest must also develop measures, if appropriate, to mitigate potential impacts of noise.

ISSUE 6: Objectors allege that the FEIS fails to adequately analyze the selected alternative's impacts to the character of the Cabinet Mountain Wilderness (Wilderness) and to the resources within the Wilderness.

Specifically, objectors contend that the DROD and FEIS: 1) fail to minimize the project's impacts to protect various surface resources in accordance with the Wilderness Act; 2) do not adequately analyze cumulative effects on the Wilderness and wilderness character; and 3) greatly overstate the alleged improvements to wilderness quality as a result of road and tail closures in areas adjacent to the proposed mine.

Response: With respect to the objection that the Forest failed to minimize the project's impacts to surface resources, the FEIS and DROD impose reasonable and practicable terms and conditions on proposed mining operations in response to public comments regarding potential effects on wilderness character. The DROD also includes numerous mitigation measures and monitoring plans in the selected alternative (DROD 63-65; Attachments 1, 2, and 3). However, it is not clear whether the Forest has considered sufficient monitoring measures to ensure protection of surface resources in the Wilderness.

While the Forest assessed the project's effects on various resources within the Wilderness, and also separately analyzed the project's potential impact on wilderness character, the monitoring within the Wilderness is not fully integrated or summarized in the Wilderness Section of the FEIS (976-999). Thus, the Forest should more fully integrate the FEIS's discussion of the effects of monitoring on wilderness character and impacts to resources within the Wilderness. Furthermore, the FEIS lists a number of mining and non-mining activities as past, current and reasonably foreseeable future actions, including the Rock Creek project (FEIS 269-277). However, it is unclear how the Forest considered all of these projects in the cumulative effects analysis for Wilderness.

With respect to the objection pertaining to the improvements to wilderness quality that might result from road and trail closures in the area, seven roads are currently restricted yearlong to motor vehicles, but open to over-the-snow vehicles from December 1 through April 30 (FEIS 194, Table 29). Currently, these roads are gated with motorized access restricted to administrative uses, access to private property, and access to mining claims. Pursuant to the proposed grizzly bear mitigation plan, *all* motorized use would be eliminated, and the FEIS analyzes the effects of limiting motorized use (FEIS 787, Table 147). However, the FEIS should be revised to more clearly describe the effect of these proposed access changes on wilderness character.

Instructions: *I am instructing the Forest to complete the following tasks:*

- *Summarize the anticipated effects on wilderness character attributes based on changes to other resources (e.g., surface water, air quality, wildlife, risk of subsidence, etc.) in the Wilderness Section of the FEIS and ROD, clearly differentiating the effects of the proposed alternatives and the agencies' mitigated alternatives. The Forest must provide context for the scope and scale of the effects on wilderness character.*

- *Disclose the anticipated cumulative effects of the Montanore and Rock Creek projects, as well as any other reasonably foreseeable actions, on wilderness character in the Wilderness Section.*

- *Summarize planned and ongoing monitoring efforts related to wilderness character and how these efforts will be incorporated into the wilderness stewardship performance monitoring plan. This summary shall also describe how monitoring for potential impacts to wilderness character will be conducted throughout the life of the project.*

- *Disclose the anticipated effects of required monitoring on wilderness character.*

- *The Final ROD shall require the inclusion of a Wilderness Specialist on appropriate technical advisory group(s) for the project. This Specialist must be consulted during phased implementation to help monitor what, if any, impacts to wilderness character might occur and if these potential impacts are within the scope of the FEIS's analysis.*

- *The Forest Service must incorporate a design measure that uses the Minimum Requirement Decision Guide (MRDG) process for monitoring activities conducted in the Wilderness to ensure that adverse effects on wilderness character are minimized.*

- *Revise the effects analysis to more clearly describe the effect of the road access changes on wilderness character.*

ISSUE 7: An objector contends that the Forest should not adopt grizzly bear mitigation measures that require road closures that will restrict winter access. The objector also contends there is no scientific information demonstrating that over-the-snow travel adversely impacts hibernating bears.

Response: The Forest complied with ESA requirements by submitting a Biological Assessment that disclosed the project's potential effects on federally listed species (FEIS 309). The wildlife mitigation plan includes an array of actions to benefit grizzly bears, including seasonal and timing restrictions for over-the-snow use (FEIS 189-199; *see also* Biological Assessment, Appendix B).

Instructions: *I am instructing the Forest to review the FEIS to ensure that changes in the proposed closure periods for the roads listed in Tables 28 and 29 (FEIS 193-194), and in Tables 2 and 3 in the grizzly bear mitigation plan, accurately reflect over-the-snow closure orders currently in effect, and display any changes in closure orders that are proposed by this project. I am also instructing the Forest to review the proposed over-the-snow travel restrictions to determine what, if any, modifications to these restrictions might be warranted based on the objectors' concerns. If modifications are needed, the Forest shall then discuss the findings of this review with the USFWS.*

ISSUE 8: An objector alleges that the groundwater cumulative effects analysis relies on flawed modeling results.

Response: Table 103 in the FEIS displays the predicted cumulative changes to groundwater baseflows. These results are based on two groundwater models: one model predicted results for the Rock Creek project, the other for the Montanore project; these models utilized different mine geometries for the individual projects and different approaches to model calibration.

The Forest prepared a memorandum discussing its use of groundwater modeling and potential changes in water quantity that may result from implementation of the Rock Creek and Montanore projects. With respect to the Rock Creek project at the sub-basin level, the memorandum indicates that the Forest plans to use a qualitative approach to assess the potential impacts to surface flows from possible changes that result from groundwater interception by the mine (KNF 2014). The Forest justified utilizing a qualitative approach and not a quantitative assessment based on the modeling limitations that were identified in Hydrometrics' Groundwater Modeling Assessment for the Rock Creek project (Hydrometrics 2014); the model's reviewer concurred with these limitations.

After reviewing the objection, I conclude that the objector correctly states that in order to derive a meaningful analysis utilizing flow values from each model, the comparison sites should have similar baseflow conditions. This is currently the case only for the stream locations in the lower basins; a quantitative comparison of the change in flow rates cannot be accurately made at EFBR-500 due to the difference in predicted pre-mining baseflow conditions between the two models. The results presented in Table 103 would be more accurate if the values for Rock Creek's model at the East Fork Bull River at EFBR-500 were removed.

Instructions: *I am instructing the Forest to modify Table 103 in the FEIS to remove the values for Rock Creek's model at the East Fork Bull River at EFBR-500, and to clarify that the cumulative effects analysis in the FEIS is based on the Montanore groundwater modeling effort alone.*

ISSUE 9: An objector claims that the FEIS contains inadequate hydrology baseline data and therefore over-relies on unsubstantiated assumptions to calibrate a descriptive and predictive model of groundwater behavior during and after proposed mining activities.

Response: The FEIS disclosed a potential range of dewatering rates and streamflow impacts based on currently available data (FEIS 561-585). Much of the data that are needed to improve the certainty of the hydrology model results, such as a better understanding of the hydraulic conductivity of the rock, fracture spacing, frequency and hydraulic conductivity, and the groundwater pressure response due to dewatering, can only be obtained from underground. This type of information will be collected during the Evaluation Phase of the project. Using this new information, the model will be recalibrated and then rerun to evaluate further potential impacts from mine dewatering (FEIS Appendix C, pp.C-54 to C-56). The additional data would reduce uncertainty and

improve the accuracy of the predictions. However, after reviewing this objection, it is not clear that the FEIS fully discloses the results of varying selected parameters of the model described in Geomatrix 2011a.

Instruction: *I am instructing the Forest to disclose any uncertainties associated with modeled estimates of impacts to hydrology resources by incorporating the uncertainty analysis as described by Geomatrix 2011a.*

ISSUE 10: An objector alleges that the FEIS contains inadequate baseline data on groundwater dependent ecosystems (GDEs). The objector also alleges that the FEIS fails to adequately analyze the project's impacts to springs, GDEs, fens and riparian areas.

Response: The project proponent completed multiple GDE inventories from 2009-2013 (FEIS Appendix C, p. C-43). While the Forest has not fully evaluated the inventory data, additional inventories of wetlands, seeps, and springs may be required in the future to meet the monitoring requirements described in the FEIS (Appendix C, pp. C-6 to C-9).

The FEIS also disclosed the potential effects of mine dewatering on GDE wetlands (FEIS 954-962). The FEIS made it clear that any measurable effects on these resources during implementation of the project will be identified via monitoring activities (FEIS Appendix C, pp. C-39 to C-80).

Instructions: *I am instructing the Forest to obtain any GDE data collected by the project proponent in 2014 and to evaluate all previously-collected GDE inventory data. A comprehensive table of all GDE sites where the data has been collected, with a reference to the appropriate report, must be added to the FEIS. The Forest must also show on a map all inventoried GDE sites.*

ISSUE 11: An objector contends that the Forest improperly defers the collection of streamflow baseline data until after the ROD is finalized. The objector also alleges that the FEIS fails to accurately assess environmental impacts to streamflows because the baseline data are incomplete.

Response: With respect to the objector's allegation that the Forest is improperly deferring the collection of baseline data, the FEIS contains a summary of the currently-available baseline streamflow data (595). The FEIS also presented a summary of available instantaneous and continuous gaged streamflow measurements within the analysis area (FEIS 610-615), and disclosed the project's potential impacts to streamflows (FEIS 617-654). However, the Forest could clarify how it utilized sufficient data to analyze the project's potential environmental impacts. It would also be helpful to update Figure 76 to include all of the locations where historical streamflow information relevant to this project was collected.

The proposed monitoring plan requires additional future data collection and monitoring of surface water sites (FEIS Appendix C, pp. C-51 to C-53). As noted in the response to Issue 9, much of the data that is needed to improve the certainty of the hydrology model

results can only be obtained from underground and will be collected during the Evaluation Phase of the project. The FEIS's monitoring plan also requires additional future data collection and monitoring of GDEs, including seeps, springs, and streamflows (FEIS Appendix C, pp. C-43 to C-51); some of this monitoring work must be completed before additional adit dewatering may occur or before any ground-disturbing activities will occur.

Instructions: *I am instructing the Forest to explain how the baseline streamflow information summarized in Section 3.11.3.2 (FEIS 600-615) was used to reach conclusions around the effects to surface water hydrology. I am also instructing the Forest to update Figure 76 and the corresponding analyses to include the locations where historical streamflow information relevant to this project was collected. This figure should include sites like LC-USFS and BC-USFS, if applicable and the data from these sites are listed in the EIS.*

ISSUE 12: An objector states that the FEIS fails to provide sufficient information to analyze the effects of the proposed Poorman tailings impoundment on reductions to downstream streamflows, seeps, and springs within the impoundment site. The objector also alleges that the Forest failed to identify mitigation measures to offset the effects on these resources.

Response: With respect to the objection that the FEIS fails to analyze the Poorman site's impact on downstream baseflows, the FEIS describes the characteristics of the four drainages within the disturbance area (616-617). Approximately 1,000 feet in each of two drainages between the disturbance area and Libby Creek was not surveyed; the best available information indicates these unsurveyed segments are usually dry and may lack a defined channel. A third unsurveyed segment is on private property where survey access was denied. Newfields (2014) documented information on the flow rates in the drainages that originate at some of these springs or seeps. The FEIS Summary and Appendix L disclose how the selected alternative's impoundment site may affect the streams located within and downstream of the impoundment site (S32-S33 and Appendix L, Table 3). However, it does not appear that the information and analysis from the Newfields memorandum has been incorporated into the FEIS.

The FEIS also disclosed that ten additional springs or seeps were identified at the Poorman tailings impoundment site in 2011. However, the Forest has not measured the flow rate of these springs or included these resources in Table 97 (Flow Measurements and Elevations for Springs in the Proposed Facility Areas (FEIS 552)).

Finally, the Forest has identified mitigation measures to offset the project's effects on baseflows, seeps and springs. Modifications to streams within the Poorman site, including the seepage collection pond, are subject to Section 404 of the CWA. Various mitigation measures for these resources, including compensatory mitigation to satisfy Section 404 requirements, are discussed in Appendix L to the FEIS.

Instructions: *I am instructing the Forest to analyze the data from the GDE inventories, including information about the ten additional springs or seeps that were identified in 2011. This analysis will also evaluate how the project might affect these resources.*

I am instructing the Forest to incorporate, where appropriate, the relevant information from the Newfields (2014) technical memorandum into the Surface Water Hydrology section of the FEIS. The Forest shall also clearly identify the mitigation measures proposed for the drainages in the Poorman impoundment site.

ISSUE 13: Objectors contend that the Forest failed to comply with ESA, and that the project will adversely affect bull trout and bull trout habitat, both in and outside the Wilderness. Specifically, objectors allege that the project activities will increase sediment, degrade water quality, increase water temperature, and reduce surface and groundwater flows. Objectors claim that these activities will have short- and long-term impacts on bull trout populations and habitat.

Response: The Forest satisfied its ESA requirements. The Forest disclosed the project's anticipated effects on bull trout and bull trout critical habitat in the FEIS (418-436), prepared and submitted a Biological Assessment to the USFWS, and consulted with the USFWS. In its 2014 Biological Opinion for bull trout, the USFWS indicated that the project is not likely to jeopardize the continued existence of bull trout and is not likely to destroy or adversely modify bull trout critical habitat (DROD 24, 31, 54, 58; Biological Opinion 2014, 6-7, 127). Further, the USFWS determined that the actual extent of the anticipated incidental take of bull trout due to changes in habitat conditions in the affected streams is unquantifiable (FEIS 16; Biological Opinion 2014, 133).

However, after reviewing the objections I have concluded that the Forest should expand the FEIS's synoptic baseline discussion and further disclose the project's effects on groundwater and bull trout habitat. The instruction may be accomplished by adopting an objector's suggestion to take synoptic streamflow measurements longitudinally along the East Fork Bull River and the East Fork Rock Creek before the Construction Phase. The Forest should also review available models and assessments to determine their relevance to the EIS analysis.

Instructions: *I am instructing the Forest to complete the following tasks:*

- *Clarify and expand the synoptic baseline discussion in the FEIS. Before the Construction Phase, the Forest must also take synoptic streamflow measurements at regular locations along the length of the East Fork Bull River and East Fork Rock Creek in order to further quantify and identify locales of flow contributions from groundwater sources. The Forest is to consider sampling streamflows in multiple seasons, including winter, if feasible. Data from these measurements shall then be evaluated to determine if the Forest needs to further disclose the potential effects on groundwater resources and bull trout habitat.*
- *Review the following studies to determine if the modelled flow metric outputs for small streams are applicable to the FEIS's flow change assessment:*

- Wenger, S.J., C.H. Luce, A.F. Hamlet, D.J. Isaak, and H.M Neville. 2010. Macroscale hydrologic modeling of ecologically relevant flow metrics. Water Resources Research. 46: W09513. doi:10.1029/2009WR008839.

- Sando and Blasch. 2015. Predicting alpine headwater stream intermittency: a case study in the northern Rocky Mountains. Ecohydrology and Hydrobiology 15:68-80.

The Forest is to document its review of these studies in the project file and update the FEIS and ROD as appropriate.

ISSUE 14: An objector alleges that the FEIS and Biological Opinion rely on flawed mitigation measures to prevent groundwater drawdown upon mine closure, and thus there is no way to mitigate against exceedance of take (*e.g.*, larger allowed baseflow reductions) for bull trout. Another objector claims that there is no clear identification of how much funding will be in place to support mitigation efforts.

Response: The FEIS indicates hydrologic data will be collected through the Operations Phase, and will be integrated into the groundwater model (DROD Attachment 3, p. 71). The project proponent will submit a final closure and post-closure plan, including a long-term monitoring plan, three to four years before mine closure (Stipulation 256, DROD Attachment 2, p. 38). The objectives of monitoring during the Closure and Post-Closure Phases are to assess potential effects of refilling of the mine void and adits on surface and groundwater resources in upper Libby Creek, East Fork Rock Creek, and East Fork Bull River drainages (DROD Attachment 3, p. 72). The USFWS used the extent and magnitude of predicted stream flow depletions, among other surrogates, to measure the amount and extent of take (Biological Opinion 133). Should the extent and magnitude of stream flow depletions predicted by the groundwater model (or actually measured during monitoring) for the Closure and Post-Closure Phases be greater than that predicted in the Forest's Biological Assessment, the Forest will re-initiate consultation with the USFWS in accordance with the Reinitiation Notice requirements of the Biological Opinion (141).

With respect to the objector's claim that the mitigation measures are inadequate, the FEIS provides a fisheries mitigation plan that describes conceptual mitigation projects to mitigate habitat changes and fish losses from mine development and operations (FEIS 185). The Forest also incorporated the required terms and conditions of the 2014 Biological Opinion for the bull trout in the DROD (8, 15-18). Habitat changes and predicted fish losses will not be mitigated in place. Thus, the mitigation plan includes efforts such as securing other populations in project and non-project streams via non-native fish removal, channel habitat restoration, and creating a bull trout population genetic reserve in Flower Creek.

The objectors are correct that the FEIS does not clearly evaluate the feasibility or efficacy of such measures. Prior to implementation, feasibility of the mitigation projects will be determined by additional planning and feasibility assessments followed by final design (Stipulations 66-82, DROD Attachment 2, pp. 12-15). The efficacy of each project will be determined via monitoring, and the value of these projects will be confirmed to ensure

that the beneficial effects of the project exceed and precede documented and predicted impacts for each core area. However, there is recently published literature that may provide greater insight into the efficacy of potential restoration efforts and may allow the Forest to better evaluate the most effective place to locate restoration efforts.

As for funding the mitigation measures, the project proponent is required to establish a trust fund and/or post a bond, to adequately fund fisheries mitigation implementation costs during the life of the project. The funding requirement is phased, consistent with the project's phased approach to implementation.

Instructions: *I am instructing the Forest to review and consider the following literature during review of the feasibility assessments required in the fisheries mitigation plan. If relevant, the Forest is to develop the feasibility assessments in light of the information and conclusions presented in the literature and to revise the fisheries mitigation plan as appropriate.*

- Western Montana Bull Trout Conservation Plan, USFS 2013.
- Al-Chokhacy, et al. 2015. Consequences of actively managing a small bull trout population in a fragmented landscape. TAFS 144: 515-531.
- Peterson, et al. 2015. Strategic modeling to assist conservation of bull trout in the Lower Clark Fork River- Final Report.
- Mhulfeld, C.C., Albeke, S.E., Gunckel, S.L., Writer, B.J., B.B. Sherpard, and B.E. May. 2015. Status and conservation of interior redband trout in the western United States. NAJFM 35:1, 31-53.

ISSUE 15: An objector contends that the FEIS contains inadequate baseline data to characterize the distribution and density of bull trout, sensitive species (westslope cutthroat trout, interior redband trout, western pearlshell mussel), and Montana state species of special concern (torrent sculpin) in streams affected by the project. The objector also contends that the FEIS fails to analyze the project's impacts to these species, including how potential water temperature increases might affect bull trout. Finally, the objector alleges that the proposed mitigation measures to protect these species are inadequate.

Response: The FEIS describes the sources of data used to determine fish distribution and benthic macroinvertebrate and periphyton populations in the analysis area (FEIS 313-319). Sources of data include fish population surveys, habitat surveys, and fish genetic analyses; information from these sources was used to establish the environmental baseline for aquatic life and fisheries in the analysis area. It is unclear, however, whether the Forest considered biological vertebrate data from within the analysis area collected by the PACFISH/INFSH Biological Opinion (PIBO) Effectiveness Monitoring Program in Region 1. These data may bolster the Forest's baseline analysis and provide information on genetic purity for westslope cutthroat trout and redband trout at some sites within the analysis area.

While the Forest evaluated the effects of the selected alternative on bull trout, sensitive species, and Montana state species of special concern (*see generally* FEIS 394-466), the FEIS should review available information in support of the findings that the project would not lead to a trend toward federal listing or create a loss of viability for sensitive species. The Forest also considered the project's potential to increase water temperatures and affect bull trout (FEIS 409-410, 430), but it is unclear if these analyses considered the findings presented in Isaak et al (2015) (*see* Issue 16 instructions) or utilized stream temperature data from the NorWeST mapping database. These data may provide additional insight as to how potential flow and stream temperature changes caused by project activities may affect bull trout and westslope cutthroat trout populations.

With respect to the objection that the FEIS contains inadequate mitigation measures to protect the aforementioned species, some aspects of the proposed bull trout mitigation are also expected to benefit westslope cutthroat trout and other fish populations as well (FEIS Appendix M, p. M-273). I have already provided instructions to the Forest to review published literature that may provide greater insight into the efficacy of potential restoration efforts (*see* Issue 14 instructions).

Instructions: *I am instructing the Forest to review the following information in order to further evaluate and explain why the project would not lead toward federal listing or create a loss of viability of these species:*

- *PIBO fish and habitat data from the analysis area*
- *Databases associated with conservation agreements for westslope cutthroat and redband trout.*

With respect to bull trout and increased water temperatures, I am also instructing the Forest to consider findings presented in Isaak et al (2015) and stream temperature data from the NorWeST mapping database. Where appropriate, the Forest should incorporate these findings in the FEIS or the project record.

ISSUE 16: An objector claims that the FEIS does not fully evaluate the cumulative effects from climate change and the development of the Rock Creek Mine on bull trout and other aquatic species.

Response: In 2014, the Council on Environmental Quality (CEQ) issued revised draft guidance on considering climate change when evaluating the environmental consequences of a proposed action. Consistent with CEQ's draft guidance, the FEIS considers climate change as part of the reasonably foreseeable affected environment (FEIS 271). The Forest also disclosed potential climate change-related impacts to aquatic resources in northwest Montana (FEIS 392-394). The disclosures in the FEIS are based on and summarize relevant scientific literature and assessments, which in themselves assess potential changes and consequences of multiple climate scenarios and modeling. However, it is unclear if the Forest evaluated the climate change literature cited by objectors.

The Forest did disclose the cumulative impacts of some actions, including the potential effects of the Rock Creek Mine, on aquatic species (FEIS 448-449). The FEIS lists a number of other mining and non-mining activities as past, present, and reasonably foreseeable future actions (FEIS 269-277). However, it is not clear if and how the Forest considered *all* of these projects in the cumulative effects analysis for aquatic species. Nor does the FEIS clearly describe the relevant factors that were used to determine the geographic scope used for the aquatic species cumulative effects analysis.

Instructions: *I am instructing the Forest to evaluate all literature cited by objectors, and, where appropriate, to incorporate findings in the FEIS or project record. I am also instructing the Forest to clearly disclose the geographic area used for the aquatic resources cumulative effects analysis, as well as the relevant factors that were used to determine the geographic area. Finally, the FEIS shall describe how the other past, present, and reasonably foreseeable future activities identified in the FEIS were considered in the cumulative effects analysis for aquatic resources. In the cases where activities do not cumulatively add to the effect, the Forest shall clearly explain why this is the case.*

I am also instructing the Forest to review and consider the following literature. Where appropriate, the Forest should incorporate these findings in the FEIS or the project record.

- Isaak et al. 2015. The cold-water climate shield: delineating refugia for preserving salmonid fishes through the 21st century. Global Change Biology, doi: 10.1111/gcb.12879.

ISSUE 17: An objector contends that the sediment mitigation measures contained in the FEIS are ineffective to prevent impacts to water quality and fisheries due to the timing of sediment reduction.

Response: Sediment discharges resulting from project activities will be addressed through permitted effluent limits and the application of best management practices (BMPs). DEQ and EPA developed a water improvement plan for the Kootenai-Fisher project Area that covers the eastside streams within the Montanore project (DEQ and EPA 2014). The plan addresses pollutants from point and non-point sources and includes a total maximum daily load (TMDL) for the CWA 303(d)-listed impaired streams. Libby Creek has eleven permitted point sources, of which the Montanore project has the only waste load allocation for mineral development. For nonpoint source pollution, the DEQ Kootenai-Fisher Water Improvement Plan recommends using BMPs to reduce sediment by maintaining unpaved roads, improving upland land cover, and expanding riparian buffer areas.

Point sources are controlled by DEQ under the Montana Pollutant Discharge Elimination System (MPDES). Most of the discharges associated with the project will be permitted as point sources, either under a general permit, if applicable, or an individual permit. The Montanore project has a MPDES permit for stormwater runoff from the Libby Adit; this permit covers three outfalls proximate to the Libby Adit. The project proponent applied

to renew its existing MPDES permit to add four additional outfalls: one for stormwater runoff from the Upper Libby Adit pad, and three for stormwater runoff from project access roads. According to DEQ, these changes will be incorporated into the renewed MPDES permit, and DEQ anticipates a decision on the renewal application by September 30.

Because the project is in the vicinity of impaired streams, DEQ and EPA established a waste load allocation of 24 tons per year for sediment for the project. This threshold applies at the basin level and includes Libby Creek and the Fisher River. Only one of the existing outfalls--Outfall 3--could potentially discharge directly to Libby Creek below the proposed location of the water treatment plant. Pursuant to the requirements of the MPDES permit, all stormwater runoff from the Libby Adit site, the Libby plant site, the Poorman impoundment site and upslope access roads will be intercepted and routed into sediment ponds, consistent with EPA guidance (40 CFR 440.130(b) and (c)). Discharge of stormwater would only occur during high flows from events larger than the 10-year/24-hour storm. According to DEQ, even if additional outfalls were added to the Montanore MPDES permit, the discharges will not cumulatively exceed the sediment waste load allocation for the project.

The FEIS discloses the effects of the sediment yield from roads produced during the project, anticipating long-term reductions in sedimentation below existing levels (FEIS 711-712) and describes the mitigation measures and BMPs that will be used to reduce sediment loading from point and non-point sources (FEIS 720-721).

Furthermore, the FEIS quantified potential sediment yield from roads using the Forest Service WEPP Road model. The FEIS reported the results in terms of existing condition (without BMPs) versus project impact (with BMPs) for the temporal phases of the project. The modeling shows a reduction from 396 tons per year under current conditions to 170 tons per year over the course of the project's 30-year timeframe (FEIS 693). The Forest addresses temporal effects by displaying for each project phase the anticipated amount of sediment that will be reduced by BMPs (FEIS 712). These values generally reflect a drop in sediment using a base assumption of 88% effectiveness from state BMP audits where the road actions are planned (FEIS 678).

However, the Biological Assessment and Biological Opinion both disclose an initial sediment *increase* associated with road work activities. The Biological Assessment quantifies this sediment increase by road (Appendix D), whereas the Biological Opinion presents the effect as an uptick in sedimentation affiliated with construction for four years (Biological Opinion 137). These increases are inconsistent with the WEPP Road model results that the Forest used to support the FEIS effects analysis.

Moreover, the FEIS notes that the WEPP Road model outputs used to analyze the access roads have an accuracy of plus or minus 50 percent (FEIS 678). While the model outputs are sufficient to compare project alternatives, they may not represent the magnitude of sediment load. It is unclear if the FEIS addressed this uncertainty when it evaluated the effectiveness of the proposed mitigation measures since the effects analysis does not,

with the exception of the use of the Libby Creek Road during the Evaluation and Construction Phases, clearly disclose the type and location of planned BMPs. Furthermore, while the primary access and haul route was changed from the Bear Creek Road to the Libby Creek Road in response to the terms of the grizzly bear Biological Opinion, it is not clear if the Forest considered whether additional or new BMPs might be needed to address increased use and traffic on Libby Creek Road.

Instructions: *Based on the issues noted above, I am instructing the Forest to undertake the following tasks:*

- *Clearly address the discrepancies between the Biological Assessment/Biological Opinion and the FEIS regarding estimated sediment production over the life of the project. The Forest should then evaluate this information in light of potential impacts to fisheries. Should the FEIS sediment effects analysis change the BA sediment effects analysis, the Forest shall update the Biological Assessment and notify the USFWS of the change.*

- *Expand the discussion of stormwater controls to describe containment within the mine operating boundary versus containment for the road work outside the boundary.*

- *In the effects analysis, quantify, to the extent possible, the expected effects of the stormwater controls to show mitigation effectiveness. The Forest shall clearly identify the net effect of the mitigation within the mine operating boundary versus road upgrades, closures, and road construction activities outside the boundary.*

- *Incorporate WEPP Road results that disclose the existing versus project impact for roads outside the boundary. The Forest shall use the WEPP Road model to quantitatively describe the reduction in sediment yield after reducing contributing road length with BMPs applied instead of using a reduction factor. The Forest shall then contrast these project estimates with existing estimates to show effects.*

- *Incorporate site-specific data collection and analysis into the FEIS's sediment analysis, focusing on road improvements and BMPs for the main access road and transmission line roads at stream crossings.*

- *In the Final ROD, use the WEPP Road model to quantitatively describe the reduction in sediment yield after paving and reducing contributing road length with BMPs from the Libby Creek Road.*

- *Include appropriate analysis of and the conditions contained in DEQ's MPDES permit renewal application decision.*

ISSUE 18: An objector contends that the Forest failed to minimize impacts to an impaired stream and prevent discharges containing sediment to a 303(d)-listed stream.

Response: The FEIS identified waters within the analysis area that are listed as impaired under the CWA (FEIS 669). However, this may not be the most recent CWA 303(d) list as states are required to submit updated lists to EPA biannually. Furthermore, while the FEIS discusses the effects of sedimentation on water quality, it does not clearly disclose the project's potential impacts to all impaired waterbodies within the analysis area.

Instructions: *I am instructing the Forest to update the list of impaired streams within the analysis area. The Forest shall also clearly identify how the waterbodies are categorized under the CWA and describe the impairment for each waterbody. Finally, I am instructing the Forest to update its analysis to clearly disclose if and how the project will further impair or exacerbate impaired streams in the analysis area.*

ISSUE 19: Objectors contend that the Forest violated NEPA and its implementing regulations by failing to adequately analyze the cumulative impacts from the combined emissions from the Montanore and Rock Creek mining projects, as well as other projects, to the Wilderness Class 1 Airshed.

Response: The FEIS lists a number of mining and non-mining activities, including the Rock Creek project, as past, present, and reasonably foreseeable future actions (FEIS 269-277). However, it is not clear if and how the Forest and DEQ considered *all* of these projects in the cumulative effects analysis for air quality. In fact, the FEIS appears to contain contradictory statements about whether the Rock Creek project was considered in the cumulative effects analysis for air quality. Nor does the FEIS clearly describe the relevant factors that were used to determine the geographic scope used for the air quality cumulative effects analysis.

Instructions: *I am instructing the Forest to clearly disclose the relevant factors that were used to determine the geographic area used for the air quality cumulative effects analysis. Also, the FEIS should be revised to better disclose the anticipated cumulative effects of the Montanore and Rock Creek projects, as well as any other project relevant to the cumulative effects analysis, to the Wilderness Class 1 Airshed. Finally, the FEIS shall describe how the other past, present, and reasonably foreseeable future activities identified in the FEIS were considered in the cumulative effects analysis for air quality. In the cases where activities do not cumulatively add to the effect, the Forest shall clearly explain why this is the case.*

ISSUE 20: An objector alleges that certain mitigation measures for grizzly bear proposed in the USFWS's Biological Opinion will unreasonably reduce the Lincoln County tax base. The objectors ask the Forest and USFWS to reevaluate the proposed mitigation measures to ensure that the affected lands remain available for county taxation.

Response: In its Biological Opinion for grizzly bear, the USFWS identified reasonable and prudent measures to minimize incidental take of grizzly bears, and terms and

conditions to implement these measures. Reasonable and prudent measures include the acquisition of land that would be managed for grizzly bear use in perpetuity; these measures were incorporated into the selected alternative in the DROD (Attachment 6, p. 2).

The Forest analyzed the project's fiscal impacts (revenues and expenses) to local governments (FEIS 831-832). However, it is not clear that the socioeconomic analysis accounted for the potential restrictions on the value of the property acquired pursuant to the aforementioned grizzly bear mitigation measure. Furthermore, it is not clear if the Year 5 revenues and expenses presented in Table 164 (Net Local Government Fiscal Impact due to Montanore) (FEIS 833) will occur over the life of the project.

Instructions: *I am instructing the Forest to update the socioeconomic analysis in the FEIS to clearly reflect the potential reduction in county tax receipts that may result from the restrictions on the value of the property acquired pursuant to the proposed grizzly bear mitigation measure. The socioeconomic analysis in the FEIS shall also be updated to clearly state whether the revenues and expenses presented in Table 164 will occur in a single year or occur over the life of the project.*

ISSUE 21: An objector claims that the proposed action would decrease streamflows by more than 10 percent in a variety of locations, including outstanding resource waters in the Wilderness, thereby violating the nondegradation provisions of Montana state law and the CWA.

Response: The FEIS discloses the model-predicted effects of mine dewatering activities on stream baseflows (FEIS 492-499). Model-predicted changes in streamflow from mine and adit dewatering during the Evaluation Phase during low-flow periods will be small (0.01 to 0.02 cfs), and may affect Libby Creek, East Fork Rock Creek, and the East Fork Bull River. However, the Forest expects these baseflow reductions during this phase to be less than three percent (FEIS 564).

At the end of the project's Construction Phase (year 8), the greatest baseflow reductions are predicted in Libby Creek at LB-300, and at the Wilderness boundary (LB-100) (FEIS 564). The groundwater model predicted the baseflow reductions in these areas during this phase to be no more than 12 percent, largely due to adit dewatering (FEIS 564). Beyond the Construction Phase, the baseflow reductions are predicted to exceed 10 percent in several streams.

All of these baseflow predictions involve uncertainty. The FEIS discloses the uncertainties associated with the groundwater model used to predict effects from the proposed activities (FEIS 580). The FEIS also states that there is some uncertainty in the method used to estimate current baseflows. Specifically, the FEIS describes the uncertainties associated with measuring streamflow and detecting streamflow changes due to mine activities (FEIS 642-643).

Ultimately, DEQ is the agency responsible for determining whether the proposed activities would impermissibly degrade state waters. However, the FEIS does not clearly

disclose how the mine dewatering activities will affect outstanding resource waters *in* the Wilderness.

Instructions: *I am instructing the Forest to more clearly discuss if the proposed activities will affect outstanding resource waters in the Wilderness.*

ISSUE 22: An objector contends that the FEIS does not adequately address impacts to senior mining water rights or senior domestic and stockwatering water rights.

Response: With respect to activities carried out pursuant to the selected alternative (Alternative 3), the FEIS discloses the project's impacts to senior water rights of surface and groundwater sources in the analysis area (FEIS 658-660). The FEIS also describes mitigation measures that the mine proponent will take to avoid adversely affecting senior water rights on the mainstem of Libby Creek and Ramsey Creek during the operations phase of the project (FEIS 658-659). Finally, the FEIS notes that the Montana Department of Natural Resources (DNRC), the agency charged with administering state water law, will determine whether the requested uses are permittable during the water rights permitting process; DNRC will determine the legal availability of water for the requested new rights (*Id.*). However, the FEIS is not clear if the Forest considered the project's potential impacts to all types of water rights.

Instructions: *I am instructing the Forest to more clearly disclose if the project will affect senior instream flow, mining, domestic, and stockwatering rights, and if so, what the effects might be. To the extent there are any impacts to the aforementioned senior water rights, the Forest must also explain how the proposed mitigation measures will ameliorate these effects.*

Finally, an objector alleged that the Forest failed to analyze approval of the proposed transmission lines pursuant to the requirements of FLPMA's Right-of-Way provisions. While I concluded that this issue did not require additional discussion or instruction to the Forest (*see* Issue G), the Forest shall provide additional information about the transmission line in the Final ROD. This additional information in the Final ROD must include the length and width of the transmission line, the distance across private lands, the distance across public lands, and the number of facilities required to support operation of the transmission line.

Summary

In conclusion, I have reviewed all of the assertions that the project violates various environmental laws, regulations, polices, and the Forest Plan. My review finds the project will be in compliance with all applicable laws and the Forest Plan. Where noted above, I have provided instructions to the Forest to provide additional or clarifying information to better demonstrate compliance with law, regulation, or policy. The Forest is to submit to me for review the additional or clarifying information included in the FEIS.

Once the instructions pertaining to the FEIS are completed it will be clear that the project will be in full compliance with all laws, regulations, policies, and the Forest Plan, and the Responsible Official may sign the Record of Decision for this project. My review constitutes the final

administrative determination of the Department of Agriculture; no further review from any other Forest Service or Department of Agriculture official of my written response to your objection is available (36 CFR 218.11(b)(2)).

Sincerely,

DAVID E. SCHMID
Deputy Regional Forester

cc: Ray G. Smith
Christopher Savage, Kootenai National Forest
Tom Livers, Montana DEQ
Eric Klepfer, MMC